LTC Series Lensed Cameras

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BOSCH
Invented for life

- Pre-assembled units with camera and varifocal lens included
- Reduces installation time to the absolute minimum
- Range of color and day/night units
- Choice of analog or network cameras
- Varifocal lenses for on-site adjustment of field-of-view

The LTC Series Indoor Camera kits provide the most economical package available for indoor applications. These kits reduce the required installation time to the absolute minimum. Each kit includes a camera with a pre-assembled and an adjustable varifocal lens. The kits for “W” model cameras also include an optional wall mount bracket. Users only need to connect the power supply and video cables to obtain superior picture performance in virtually all indoor applications.

Superior image quality
The kits are based on the Dinion Series of analog and IP cameras, which cover standard and high resolution as well as color and day/night versions.

Network-based control and configuration
Dinion IP network cameras are designed to ensure the highest possible image quality at all times, providing DVD-like, high-quality MPEG-4 video, at up to 25 images per second. True hybrid cameras, they have an Ethernet connection for network video and a BNC connection for analog video.
IP models are ONVIF conformant devices that are able to exchange live video, audio, metadata, and control information. They have dual H.264 encoding streams that create DVD-quality streaming video at ultra-low bit rates, as well as a simultaneous M-JPEG stream, that minimize bandwidth and storage usage. They also feature the Motion+ video motion analysis system that is based on pixel change and includes object size filtering capabilities and sophisticated tamper-detection capabilities. The Intelligent Video Analysis (IVA) option, activated by a separate license, uses multilevel image analysis of pixels, texture, and object direction. The IP cameras also support local recording on a microSD card. This can be used for local alarm recording or for Automatic Network Replenishment (ANR) to improve the overall reliability of video recording.

Ease of installation and servicing
Each analog camera is equipped with Bosch’s Bilinx bidirectional communication for remote programming. Bilinx uses standard video cable to transmit alarm and status messages, providing superior performance and simplified installation.
The camera kits can be used in a wide variety of places such as retail stores, health care facilities, financial institutions, educational environments, and industrial areas.

System Overview

Model No.	Camera Type	Lens	Mount	Description
Analog Color, Standard, 24 VAC, 60 Hz, NTSC				
LTC 0435-28	LTC 0435/20	LTC 3364/50	N/A	2.8-10 mm lens

LTC 0435-28W	LTC 0435/20	LTC 3364/50	TC9210U	2.8-10 mm lens, white mount
Analog Color, High Resolution (Night Sense), 24 VAC, 60 Hz, NTSC				
LTC 0455-28	LTC 0455/21	LTC 3364/50	N/A	2.8-10 m m lens
LTC 0455-28W	LTC 0455/21	LTC 3364/50	TC9210U	2.8-10 m m lens, white mount
Analog Color, XF (Night Sense), 24 VAC, 60 Hz, NTSC				
LTC 0485-28	LTC 0485/21	LTC 3364/50	N/A	2.8-10 m m lens
LTC 0485-28W	LTC 0485/21	LTC 3364/50	TC9210US	2.8-10 m m lens, silver mount
Analog Day/Night, 2X, 24 VAC, 60 Hz, NTSC				
LTC 0498-28	LTC 0498/21	LTC 3664/40	N/A	2.8-11 mm lens
LTC 0498-28W	LTC 0498/21	LTC 3664/40	TC9210US	2.8-11 mm lens, silver mount
LTC 0498-75	LTC 0498/21	LTC 3674/20	N/A	7.5-50 mm lens
LTC 0498-75W	LTC 0498/21	LTC 3674/20	TC9210US	7.5-50 mm lens, silver mount
IP Color, 12VDC/24 VAC, 60 Hz, NTSC, MicroSD slot (card not included), H.264				
NBC-455-28	NBC-455-21P	LTC 3364/50	N/A	2.8-10 mm lens, PoE
NBC-455-28V	NBC-455-22P	LTC 3364/50	N/A	2.8-10 mm lens, IVA
NBC-455-28W	NBC-455-21P	LTC 3364/50	TC9210US	2.8-10 mm lens, silver mount
NBC-455-28WV	NBC-455-22P	LTC 3364/50	TC9210US	2.8-10 mm lens, IVA, silver mount
NBC-455-55	NBC-455-21P	LTC 3374/50	N/A	5-50 mm lens, PoE
NBC-455-55V	NBC-455-22P	LTC 3374/50	N/A	5-50 mm lens, IVA
NBC-455-55W	NBC-455-21P	LTC 3374/50	TC9210US	5-50 mm lens, silver mount
NBC-455-55WV	NBC-455-22P	LTC 3374/50	TC9210US	5-50 mm lens, IVA, silver mount
IP Day/Night, 12VDC/24 VAC, 60 Hz, NTSC, MicroSD slot (card not included), H.264				
NBN-498-28	NBN-498-21P	LTC 3664/40	N/A	2.8-11 mm lens, PoE
NBN-498-28V	NBN-498-22P	LTC 3664/40	N/A	2.8-11 mm lens, IVA
NBN-498-28W	NBN-498-21P	LTC 3664/40	TC9210US	2.8-11 mm lens, silver mount
NBN-498-28WV	NBN-498-22P	LTC 3664/40	TC9210US	2.8-11 mm lens, IVA, silver mount
NBN-498-75	NBN-498-21P	LTC 3674/20	N/A	7.5-50 mm lens, PoE
NBN-498-75V	NBN-498-22P	LTC 3674/20	N/A	7.5-50 mm lens, IVA
NBN-498-75W	NBN-498-21P	LTC 3674/20	TC9210US	7.5-50 mm lens, silver mount
NBN-498-75WV	NBN-498-22P	LTC 3674/20	TC9210US	7.5-50 mm lens, IVA, silver mount

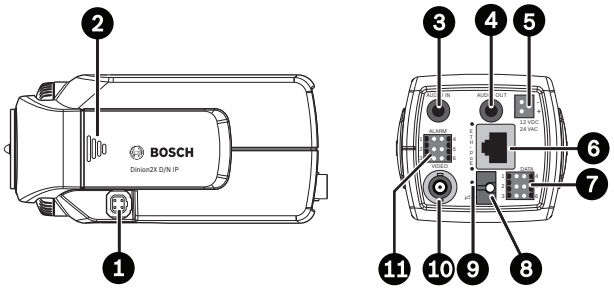
N/A = not available
IVA = enabled activation via a separate license

Certifications and Approvals

Electromagnetic Compatibility	
Emission	
LTC 0435 Series, LTC 0455 Series, LTC 0485 Series, LTC 0498 Series	EN55022 Class B FCC Part 15 Class B
NBC-455 Series	EN55022 Class B EN61000-3-2 EN61000-3-3 FCC Part 15
NBN-498 Series	EN55022 Class B EN61000-3-2 EN61000-3-3 FCC Part 15
Immunity	
LTC 0435 Series, LTC 0455 Series, LTC 0485 Series, LTC 0498 Series	EN50130-4
NBC-455 Series	EN50130-4 (PoE, +12 VDC) EN55024 (24 VAC) EN50121-4
NBN-498 Series	EN50130-4 (PoE, +12 VDC) EN55024 (24 VAC) EN50121-4B
Safety	
LTC 0435 Series, LTC 0455 Series, LTC 0485 Series, LTC 0498 Series	EN60065
NBC-455 Series	EN60950-1 UL60950-1 (2nd edition) CAN/CSA-C 22.2 No. 60950-1
NBN-498 Series	EN60950-1 UL60950-1 (2nd edition) CAN/CSA-C 22.2 No. 60950-1
Vibration	Camera with 500 g (1.1 lbs) lens as per IEC60068-2-6

Region	Certification	
USA	FCC	Declaration of Conformity
	UL	

Installation/Configuration Notes



IP Camera Controls with MicroSD Card Slot

1	Lens connector	7	Data (RS485/422/232)
2	Control buttons	8	MicroSD card slot (card not included)
3	Audio in	9	Reset button
4	Audio out	10	BNC video output (service mode)
5	Power supply input	11	Alarm in, relay out
6	10/100 Base-T Fast Ethernet		

Parts Included

Quantity	Components
1	CCTV camera with lens, mounted and adjusted
1	Mounting bracket (“W” models only)

Technical Specifications

For a detailed list of camera technical specifications, refer to the appropriate datasheet for additional information.

Electrical

Model	Voltage
LTC 0435 Series, LTC 0455 Series, LTC 0485 Series	11-39 VDC, 12-28 VAC
LTC 0498 Series	12 VDC ± 10%, 24 VAC ± 10%
NBC-455 Series, NBN-498 Series	12 VDC ± 10%, 24 VAC ± 10%, and PoE

Power Consumption	
LTC 0435 Series, LTC 0455 Series, LTC 0485 Series	4 W, excluding lens
LTC 0498 Series	4.2 W (12 VDC), 6 W (24 VAC)
NBC-455 Series	≥6 W

NBN-498 Series	6.6 W | 7.8 W IVA (12 VDC) 8.2 W | 9.7 W IVA (24 VAC) 9.6 W (PoE 48 VDC)

Imager

LTC 0435 Series, LTC 0455 Series, LTC 0485 Series, NBC-455 Series	Interline transfer CCD, 1/3-inch image format
LTC 0498 Series, NBN-498 Series	1/3-inch CCD, WDR, dual shutter

Sensitivity

(3200 K, scene reflectivity 89%, F1.2)

	Minimum Illumination (30 IRE)	Scene Illumination (50 IRE)	Scene Illumination (Full Video)
Analog Color, Standard			
LTC 0435-28		0.54 lux (0.05 fc)	2.15 lux (0.20 fc)
Analog Color, High Resolution (Night Sense)			
LTC 0455-28			
Standard Mode		0.89 lux (0.08 fc)	3.59 lux (0.33 fc)
NightSense		0.36 lux (0.03 fc)	1.43 lux (0.13 fc)
Analog Color, XF (Night Sense)			
LTC 0485-28			
Color		0.80 lux (0.07 fc)	3.26 lux (0.30 fc)
NightSense		0.32 lux (0.03 fc)	n/a
SensUp		n/a	0.036 lux (0.003 fc)
NightSense + SensUp		0.018 lux (0.002 fc)	n/a
Analog Day/Night, 2X			
LTC 0498-28			
Color	0.20 lux (0.0204 fc)	0.63 lux (0.063 fc)	3.26 lux (0.326 fc)
Color + SensUp 10x	0.02 lux (0.00204 fc)	0.06 lux (0.00639 fc)	0.32 lux (0.0326 fc)
Mono-chrome	0.081 lux (0.0081 fc)	2.55 lux (0.255 fc)	1.33 lux (0.133 fc)
Mono-chrome + SensUp 10x	0.0081 lux (0.00081 fc)	0.025 lux (0.0025 fc)	0.133 lux (0.013 fc)
LTC 0498-75			
Color	0.17 lux (0.0176 fc)	0.55 lux (0.055 fc)	2.81 lux (0.281 fc)
Color + SensUp 10x	0.018 lux (0.00176 fc)	0.055 lux (0.0055 fc)	0.281 lux (0.0281 fc)
Mono-chrome	0.0704 lux (0.00704 fc)	0.221 lux (0.02206 fc)	1.150 lux (0.11501 fc)
Mono-chrome + SensUp 10x	0.007 lux (0.0007 fc)	0.022 lux (0.002229 fc)	0.115 lux (0.0115 fc)
IP			
NBC-455-28 Series (Color)			
Color	0.40 lux (0.04 fc)	0.88 lux (0.088 fc)	3.5 lux (0.35 fc)
NightSense	0.16 lux (0.016 fc)	0.35 lux (0.035 fc)	1.41 lux (0.141 fc)
NBC-455-55 Series (Color)			
Color	0.60 lux (0.06 fc)	1.30 lux (0.130 fc)	5.21 lux (0.521 fc)
NightSense	0.24 lux (0.024 fc)	0.52 lux (0.052 fc)	2.08 lux (0.208 fc)
NBN-498-28 Series (Day/Night)			
Color	0.020 lux (0.020 fc)	0.63 lux (0.063 fc)	3.26 lux (0.326 fc)
Color + SensUp 10x	0.020 lux (0.0020 fc)	0.063 lux (0.0063 fc)	0.32 lux (0.032 fc)
Mono-chrome	0.081 lux (0.0081 fc)	0.255 lux (0.025 fc)	1.33 lux (0.133 fc)
Mono-chrome + SensUp 10x	0.0081 lux (0.00081 fc)	0.0255 lux (0.0025 fc)	0.133 lux (0.0133 fc)
NBN-498-75 Series (Day/Night)			
Color	0.15 lux (0.015 fc)	0.55 lux (0.055 fc)	2.81 lux (0.281 fc)
Color + SensUp 10x	0.01 lux (0.001 fc)	0.05 lux (0.005 fc)	0.28 lux (0.028 fc)
Mono-chrome	0.07 lux (0.007 fc)	0.22 lux (0.022 fc)	1.15 lux (0.115 fc)
Mono-chrome + SensUp 10x	0.0070 lux (0.0007 fc)	0.0229 lux (0.00229 fc)	0.1150 lux (0.0115 fc)

Horizontal Resolution	
LTC 0435 Series	330 TVL
LTC 0455 Series, LTC 0485 Series, LTC 0498 Series, NBC-455 Series, NBN-498 Series	540 TVL

Output (Analog Models)
Composite video 1.0 Vpp, 75 Ohm

Output (IP Models)	
Video Standards	MPEG-4; M-JPEG, H.264 (ISO/IEC 14496-10)
GOP Structure	I, IP
Data Rate	9.6 Kbps to 6 Mbps (const. and variable)
Local Storage	MicroSD card slot (card not included)

Control (Analog Models)
Bilinx bi-directional coaxial communication OSD with softkey operation

Control (Digital Model)
Web browser or Configuration Manger

Lenses

	LTC 3364/50	LTC 3374/50	LTC 3664/40	LTC 3674/20
Focal Length	2.8–10 mm	5–50 mm	2.8–11 mm	7.5–50 mm
Iris Control Range	F1.4 – 360	F1.7 – 360	F1.4 – 360	F1.3 – 360
Iris Control	DC-iris	DC-iris	DC-iris	DC-iris
IR Corrected	n/a	n/a	√	√

Mechanical

Connectors	
Power	Plug
Video	BNC –connector

Camera Dimensions (H x W x L)	
LTC 0435 Series, LTC 0455 Series, LTC 0485 Series	58 mm x 67 mm x 122 mm (2.28 in. x 2.64 in. x 4.80 in.)
LTC 0498 Series, NBC-455 Series, NBN-498 Series	58 mm x 66 mm x 122 mm (2.28 in. x 2.64 in. x 4.80 in.) (without lens)

Weight	
LTC 0435 Series, LTC 0455 Series, LTC 0485 Series, LTC 0498 Series	450 g (0.99 lb) without lens
NBC-455 Series	524 g (1.155 lb) without lens
NBN-498 Series	542 g (1.195 lb) without lens
Mounting Bracket	TC9210U or TC9210US

Environmental

Temperature Range	
Operating Temperature	
LTC 0435 Series LTC 0455 Series LTC 0485 Series	-20 °C to +50 °C (-4 °F to +122 °F)
LTC 0498 Series	-20 °C to 55 °C (-4 °F to 131 °F)
NBC-455 Series*, NBN-498 Series*	-20 °C to +50 °C (-4 °F to +122 °F) (non-IVA) -20 °C to +45 °C (-4 °F to +113 °F) (IVA) *For extended temp. range, use HAC-IPCCC.
Storage Temperature	
LTC 0435 Series, LTC 0455 Series, LTC 0485 Series	-25 °C to +70 °C (-13 °F to +158 °F)
LTC 0498 Series	-40 °C to 70 °C (-40 °F to 158 °F)
NBC-455 Series, NBN-498 Series	-40 °C to +70 °C (-40 °F to +158 °F)
Operating Humidity	
LTC 0435 Series, LTC 0455 Series, LTC 0485 Series	5 - 93% relative (non-condensing)
LTC 0498 Series, NBC-455 Series, NBN-498 Series	20 - 93% relative (non-condensing)

Ordering Information

LTC 0435-28
Camera, color, 2.8-10 mm lens, 24 V 60 Hz
Order number **LTC 0435-28**

LTC 0435-28W
Camera, color, 2.8-10 mm lens, 24 V 60 Hz, white mount
Order number **LTC 0435-28W**

LTC 0455-28
Camera, color, 2.8-10 mm lens, 24 V 60 Hz
Order number **LTC 0455-28**

LTC 0455-28W
Camera, color, 2.8-10 mm lens, 24 V 60 Hz, white mount
Order number **LTC 0455-28W**

LTC 0485-28
Camera, color, 2.8-10 mm lens, 24 VAC, 60 Hz
Order number **LTC 0485-28**

LTC 0485-28W
Camera, color, 2.8-10 mm lens, 24 VAC, 60 Hz, silver mount
Order number **LTC 0485-28W**

LTC 0498-28
Day/night camera, 2.8-11 mm lens, 24 VAC, 60 Hz
Order number **LTC 0498-28**

LTC 0498-28W
Day/night camera, 2.8-11 mm lens, 24 VAC, 60 Hz, with mount
Order number **LTC 0498-28W**

LTC 0498-75
Day/night camera, 7.5-50 mm lens, 24 VAC, 60 Hz
Order number **LTC 0498-75**

LTC 0498-75W
Day/night camera, 7.5-50 mm lens, 24 VAC, 60 Hz, with mount
Order number **LTC 0498-75W**

NBC-455-28 IP Color Camera
Dinion IP Color camera, 1/3 in., 2.8-10 mm lens, 12VDC/24 VAC, 60 Hz, PoE,
H.264, MicroSD card slot
Order number **NBC-455-28**

NBC-455-28V IP Color Camera with IVA
Dinion IP Color camera, 1/3 in., 2.8-10 mm lens, 12VDC/24 VAC, 60 Hz, PoE, IVA,
H.264, MicroSD card slot
Order number **NBC-455-28V**

NBC-455-55 IP Color Camera
Dinion IP Color camera, 1/3 in., 5-50 mm lens, 12VDC/ 24 VAC, 60 Hz, PoE,
H.264, MicroSD card slot
Order number **NBC-455-55**

NBC-455-55V IP Color Camera with IVA
Dinion IP Color camera, 1/3 in., 5-50 mm lens, 12VDC/ 24 VAC, 60 Hz, PoE, IVA,
H.264, MicroSD card slot
Order number **NBC-455-55V**

NBN-498-28 IP Day/Night Camera
Dinion IP Day/Night camera, 1/3 in., 2.8-11 mm lens, WDR, 12VDC/24VAC, 60 Hz, PoE, H.264, MicroSD card slot
Order number **NBN-498-28**

NBN-498-28V IP Day/Night Camera with IVA
Dinion IP Day/Night camera, 1/3 in., 2.8-11 mm lens, WDR, 12VDC/24VAC, 60 Hz, PoE, IVA, H.264, MicroSD card slot
Order number **NBN-498-28V**

NBN-498-75 IP Day/Night Camera
Dinion IP Day/Night camera, 1/3 in., 7.5-50 mm lens, WDR, 12VDC/24VAC, 60 Hz, PoE, H.264, MicroSD card slot
Order number **NBN-498-75**

NBN-498-75V IP Day/Night Camera with IVA
Dinion IP Day/Night camera, 1/3 in., 7.5-50 mm lens, WDR, 12VDC/24VAC, 60 Hz, PoE, IVA, H.264, MicroSD card slot
Order number **NBN-498-75V**

NBC-455-28W IP Color Camera Kit
Dinion IP Color Camera Kit, 2.8 – 10 mm, 12 VDC / 24 VAC, 60 Hz, silver mount, H.264, MicroSD card slot
Order number **NBC-455-28W**

NBC-455-28WV IP Color Camera Kit with IVA
Dinion IP Color Camera Kit with IVA, 2.8 – 10 mm, 12VDC / 24 VAC, 60 Hz, silver mount, H.264, MicroSD card slot
Order number **NBC-455-28WV**

NBC-455-55W IP Color Camera Kit
Dinion IP Color Camera Kit, 5 - 50 mm, 12VDC / 24 VAC, 60 Hz, silver mount, H.264, MicroSD card slot
Order number **NBC-455-55W**

NBC-455-55WV IP Color Camera Kit with IVA
Dinion IP Color Camera Kit with IVA, 5 – 50 mm, 12 VDC / 24 VAC, 60 Hz, silver mount, H.264, MicroSD card slot
Order number **NBC-455-55WV**

NBN-498-28W IP Day/Night Camera Kit
Dinion IP Day/Night Camera Kit, 2 8 – 11 mm, 12 VDC / 24 VAC, 60 Hz, silver mount, H.264, MicroSD card slot
Order number **NBN-498-28W**

NBN-498-28WV IP Day/Night Camera Kit with IVA
Dinion IP Day/Night Camera Kit with IVA, 2 8 – 11 mm, 12 VDC / 24 VAC, 60 Hz, silver mount, H.264, MicroSD card slot
Order number **NBN-498-28WV**

NBN-498-75W IP Day/Night Camera Kit
Dinion IP Day/Night Camera Kit, 7.5 - 50 mm, 12 VDC / 24 VAC, 60 Hz, silver mount, H.264, MicroSD card slot
Order number **NBN-498-75W**

NBN-498-75WV IP Day/Night Camera Kit with IVA
Dinion IP Day/Night Camera Kit with IVA, 7.5 - 50 mm, 12 VDC / 24 VAC, 60 Hz, silver mount, H.264, MicroSD card slot
Order number **NBN-498-75WV**

Accessories

EX12LED8M LED Infrared Illuminator
Infrared w/ 42 LEDs, 850 nm, Med Beam 30°, 12/24 VRB, 0.5 amp, Photocell
Order number **EX12LED8M**

EX12LED9M LED Infrared Illuminator
Infrared w/ 42 LEDs, 940 nm, Med Beam 30°, 12/24 VRB, 0.5 amp, Photocell
Order number **EX12LED9M**

EX12LED8W LED Infrared Illuminator
Infrared w/ 42 LEDs, 850 nm, Wide Beam 60°, 12/24 VRB, 0.5 amp, Photocell
Order number **EX12LED8W**

EX12LED9W LED Infrared Illuminator
Infrared w/ 42 LEDs, 940 nm, Wide Beam 60°, 12/24 VRB, 0.5 amp, Photocell
Order number **EX12LED9W**

UPA-1220-60 Power Supply
120 VAC, 60 Hz, 12 VDC, 1 A Out, regulated
Order number **UPA-1220-60**

UPA-2410-60 Power Supply
120 VAC, 60 Hz, 24 VAC, 10 VA Out
Order number **UPA-2410-60**

TC8235GIT Ground Loop Isolation Transformer
Order number **TC8235GIT**

Software Options

VP-CFGSFT Configuration Software
for cameras using Bilinx, includes VP-USB Adaptor
Order number **VP-CFGSFT**

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